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This study of prediction of college success was designed to use the high school GPA and other variables, both cognitive and non-cognitive. It attempted to locate factors that would predict grades in English, mathematics, and biology, as well as predict the over-all GPA. Seven hundred students were examined. In college English, 49% of the variance could be determined from the student's high school English average, his high school GPA, and his score on the Brown-Holtzman Survey of Study Habits and Attitudes. Grades in mathematics were predicted from high school mathematics average, high school GPA, and the Florida 12th-Grade Mathematics Aptitude score. The best single predictor of success in college English and mathematics was high school success in them. Predictions for success in biology were based on the high school biology grade, the high school GPA, the Florida 12th-Grade Natural Science Score, and the Edwards Personal Preference Abasement Score. The best predictor in this course, however, was the over-all high school GPA. In summary, the multiple regression study of 31 variables generally supports the efficacy of considering past grades to predict grade success at the next level. It has also resulted in substantial multiple R's and has introduced non-cognitive variables not previously studied with any frequency. (HH)

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PREDICTORS OF COLLEGE SUCCESS

Almost everyone I talk with is familiar with the fact that high school grades are the best predictors of college grades. The difficulty has been that not enough variance is accounted for if one stops at grades alone. Wishing to increase our accuracy in placing students, we decided to determine what other variables, both cognitive and non-cognitive, might direct us to this end. We therefore designed a research study using a multiple regression concept, in an attempt to locate the factors which would predict first semester college grades in basic English, math, biology, and overall grade-point average.

The beginning sample of some 700 students made the results and suggestions somewhat interesting. We found that we could predict 49 per cent of the variance in college English 101 by observing the student's high school English average, his high school overall average, his Florida 12th-grade total, and his score on the Brown-Holtzman Survey of Study Habits and Attitudes. Utilizing the statistical co-efficient of separate determination, the high school English average accounted for 17 per cent of the variance, with high school overall average contributing 14 per cent. The two (2) remaining variables, 9 per cent each.

College grades in our general education math course could be predicted by taking into consideration the student's high school math average, his overall high school average,

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and the Florida 12th-grade Math Aptitude score. Accounting for some 37 per cent of the variance, respectively, 15 per cent, 13 per cent, and 9 per cent. As you will note in the first two instances, the best single predictor for success in English and math was the high school success in high school English and math.

In the case of the college predicting success in college biology, however, the best single predictor of success, accounting for 23 per cent of the variance, is the high school overall average. However, the high school biology score did account for 13 per cent of the variance, with the Florida 12th-grade Natural Science score accounting for 11 per cent of the variance, and the Edwards Personal Preference Abasement Score, an additional 4 per cent. There was a low negative correlation between the grade received in college biology and the abasement score. These four (4) variables then accounted for 61 per cent of the variance, and each variable was selected at the 95 per cent level of reliability (as were all regression coefficients).

We were able to predict our Freshmen's grade-point average at the end of the first semester with four (4) variables, which were statistically reliable at 95 per cent, and resulted in a multiple R of .7345. High school overall average accounted for 34 per cent of the total 51 per cent accounted variance; with Florida 12th-grade Aptitude Score, 12 per cent; the Brown-Holtzman Survey of Study Habits and Attitudes,

5 per cent; and the Edwards Personal Preference Intraception Score accounting for 3 per cent of the variance. There was a high positive correlation between the Freshmen GPA and the intraception score.

In summary, the multiple regression study of some 31 variables, generally supports the efficacy of considering grades when one wishes to predict grade success at the next level. But more importantly, it has resulted in some rather substantial multiple R's, and has introduced some non-cognitive variables that have not heretofore been studied in any frequency.

Sincerely,

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